Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (Currently Amended) An isolated binding polypeptide comprising at least a first and a second binding domain capable of specifically binding Streptococcus pneumoniae surface adhesin A (PsaA) protein, said first binding domain comprises the amino acid sequence of SEQ ID NO: 6, or a variant of SEQ ID NO: 6 having a single amino acid substitution, ~~or a functional homologue thereof~~ and said second binding domain comprises the amino acid sequence of SEQ ID NO: 4, or a variant of SEQ ID NO: 4 having a single amino acid substitution.~~or a functional homologue thereof.~~

2. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the isolated binding polypeptide is a pure isolated binding polypeptide.

3. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the binding polypeptide is selected from antibodies or immunologically active fragments of antibodies or single chain of antibodies.

4. (Previously Presented) The isolated binding polypeptide according to claim 3, wherein the antibodies are selected from monoclonal antibodies, polyclonal antibodies or mixtures of monoclonal antibodies.

5. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the binding polypeptide is monospecific towards the PsaA protein.

6. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the binding polypeptide is bispecific having at least one portion specific towards the PsaA protein.

7. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the binding polypeptide is multispecific having at least one portion towards the PsaA protein.

8. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the first and second binding domains are carried by a human antibody framework.

9. (Previously Presented) The Isolated binding polypeptide according to claim 1, wherein the first and second binding domains are carried by a humanized antibody framework.

10. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein said first and second binding domain recognizes an epitope in the N-terminal 150 amino acids of PsaA.

11. (Previously Presented) The isolated binding polypeptide according to claim 10 wherein said first and second binding domains recognize an epitope in the N-terminal 100 amino acid residues of PsaA.

12-16. (Canceled)

17. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the binding polypeptide is capable of binding PsaA from two or more different Pneumococcus serotypes.

18. (Currently Amended) The isolated binding polypeptide according to claim 1, wherein the first binding domain comprises the amino acid sequence of SEQ ID NO: 6 and the second binding domain comprises the amino acid sequence of SEQ ID NO: 4 ~~12, wherein the homologues of said first and second binding domains [[are]] are selected from the group consisting of those having at least about 60% homologous to SEQ ID NO 6 and SEQ ID NO 4, respectively, at least about 65% homologous, those at least about 70% homologous, those at least about 75% homologous, those at least about 80% homologous, those at least about 85% homologous, those at least about 90% homologous, those at least about 95% homologous, and those at least about 98% homologous~~.

19. (Canceled)

20. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the first and second binding domains are located in a V_L domain.

21. (Previously Presented) The isolated binding polypeptide according to claim 1, wherein the first and second binding domains are located in a V_H domain.

22. (Currently Amended) The isolated binding polypeptide according to claim 1 [[12]], wherein the first and second binding domains are arranged as a complementarity-determining regions (CDRs) in the binding polypeptide.

23. (Previously Presented) The isolated binding polypeptide according to claim 2, wherein the fragment of antibodies are selected from Fab, Fab', $F(ab)_2$ and Fv.

24. (Previously Presented) The binding polypeptide according to claim 1, comprising at least a first binding domain, a second binding domain, and a third binding domain, wherein said first and second binding domains are capable of specifically binding Streptococcus pneumoniae surface adhesin A (PsaA) protein, and said third binding domain is different from said first and second binding domains.

25. (Previously Presented) The isolated binding polypeptide according to claim 24, wherein the third binding domain is capable of specifically binding a mammalian protein, such as a human protein, such as a protein selected from CD64 or CD89.

26. (Previously Presented) The isolated binding polypeptide according to claim 24, wherein the third binding domain is capable of specifically binding a mammalian cell, wherein said mammalian cell is selected from the group consisting of: leucocytes, macrophages, lymphocytes, neutrophilic cells, basophilic cells, and eosinophilic cells.

27. (Previously Presented) The isolated binding polypeptide according to claim 25, wherein the third binding domain is capable of specifically binding a Pneumococcus protein.

28. (Previously Presented) The isolated binding polypeptide according to claim 27, wherein third binding domain is capable of specifically binding a PsaA epitope different from the first and second binding domains.

29. (Previously Presented) The isolated binding polypeptide according to claim 24, wherein the binding polypeptide comprises three binding domains.

30. (Previously Presented) The isolated binding polypeptide according to claim 29, wherein the three binding domains are linked through a spacer region.

31. - 41. (Canceled)